File 155:MEDLINE 1966-1993/DEC (9312W1)

Set	Items	Description
		?s allerg? and stimulation(w)index?
	45457	ALLERG?
	232533	STIMULATION
	84530	INDEX?
	464	STIMULATION(W)INDEX?
S1	13	ALLERG? AND STIMULATION(W)INDEX?

?t s1/6/1-13

1/6/1
08364439 93074439
[A rapid measuring technique for allergen-induced IL2 responsiveness of lymphocytes by the propidium iodide-staining method. Detection of the etiological antigen in patients with allergic diseases]

1/6/2
08253963 92391963
Cord blood lymphocyte responses to food antigens for the prediction of allergic disorders.

1/6/3
08160782 92298782
The identification of PAF-release-enhancing activity in culture supernatant of mononuclear cells from asthmatics. Correlation between lymphocyte responses and immediate type hypersensitivity.

1/6/4
08129881 92267881
Lymphocyte transformation test with nickel in hard metal asthma: another sensitizing component of hard metal.

1/6/5
07655537 91174537
Sensitizing capacity of three methyl alkanesulphonates: a murine in vivo and in vitro model of allergic contact dermatitis.

1/6/6
07631157 91150157
The murine local lymph node assay: results of an inter-laboratory trial.

1/6/7
07362493 90269493
Persistent cutaneous insulin allergy resulting from high-molecular-weight insulin aggregates.

1/6/8
07333750 90240750
Contact sensitivity to Pityrosporum ovale in patients with atopic dermatitis.

1/6/9
07047654 89349654
T cell responses to a Parietaria judaica pollen extract: comparison between Parietaria-sensitive patients, other atopics and healthy controls.

1/6/10
06917173 89219173
Maintenance of alveolitis in patients with chronic beryllium disease by beryllium-specific helper T cells.

1/6/11
05359500 84283500
Humoral and cellular immune response of the rat to immunization with bee venom.

1/6/12
05060895 83293895
Nonspecific suppressor cell activity and lymphocyte response to beta-lactoglobulin in cow's milk protein hypersensitivity.

1/6/13
04019490 80130490
Studies on poison ivy. In vitro lymphocyte transformation by urushiol-protein conjugates.
?t s1/7/9

1/7/9
07047654 89349654
T cell responses to a Parietaria judaica pollen extract: comparison between Parietaria-sensitive patients, other atopics and healthy controls.
Di Felice G; Mari A; Mucci N; Afferni C; Bruno G; Pini C
Laboratory of Immunology, Istituto Superiore Di Sanita, Rome, Italy.
Allergy Jul 1989, 44 (5) p322-9, ISSN 0105-4538 Journal Code: 39C
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We investigated the in vitro proliferation of peripheral blood mononuclear cells (PBMC) from Parietaria-allergic subjects, atopic patients with other sensitizations and healthy controls to Parietaria judaica pollen extracts. PBMC from almost all 44 subjects, divided into five groups (Parietaria-, grass-, Parietaria and grass-, Dermatophagoides-sensitive patients and normal individuals) were able to proliferate in response to the extract without statistically significant differences between groups. Mean values of the stimulation indexes for the five groups were respectively: 10.73, 3.18, 5.50, 10,56, 9.28. The results of separation experiments showed that the responding cells were T lymphocytes. Mitogenic effect of the Parietaria pollen extract was excluded by the absence of proliferative PBMC response from cord blood of seven newborns. These results indicate that Parietaria-sensitive, other atopics and normal individuals have Parietaria-specific T cells able to proliferate in vitro to Parietaria allergens.
?s stimulation(w)index and t(w)cell?(w)epitope?

?s stimulation(w)index? and t(w)cell?(w)epitope?

Processing
Processing
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          232533  STIMULATION
           84530  INDEX?
             464  STIMULATION(W)INDEX?
         1644283  T
         1215070  CELL?
           16135  EPITOPE?
             611  T(W)CELL?(W)EPITOPE?
      S2       4  STIMULATION(W)INDEX? AND T(W)CELL?(W)EPITOPE?
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?t s2/6/1-4

2/6/1
08332559 93042559
Proliferative responses of peripheral blood mononuclear cells from patients with autoimmune thyroid diseases to synthetic peptide epitopes of human thyroid peroxidase.

2/6/2
07468925 90375925
Protective efficacy of a cloned Brugia malayi antigen in a mouse model of microfilaremia.

2/6/3
07440213 90347213
The identification of an Onchocerca-specific recombinant antigen containing a T cell epitope.

2/6/4
07072511 89374511
T-cell reactivity in myasthenia gravis.
?t s2/7/2,3

2/7/2
07468925 90375925
Protective efficacy of a cloned Brugia malayi antigen in a mouse model of microfilaremia.
Kazura JW; Maroney PA; Pearlman E; Nilsen TW
Department of Medicine, Case Western Reserve University, Cleveland, OH 44106.
J Immunol Oct 1 1990, 145 (7) p2260-4, ISSN 0022-1767
Journal Code: IFB
Contract/Grant No.: AI 15351, AI, NIAID; HL 371107, HL, NHLBI
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Immunization of mice with irradiated Brugia larvae or parasite extracts has been shown to induce partial resistance to microfilaremia and enhance clearance of infective larvae. We recently reported the cloning of a 548 amino acid 62-kDa Brugia malayi Ag identified on the basis of reactivity with antisera to a subset of protective microfilarial Ag. Our study

describes the protective efficacy against microfilaremia in mice, immunogenicity, and parasite stage-specificity of this candidate vaccine molecule. Immunization of Swiss or BALB/c mice with 1 to 3 micrograms of a 92-kDa trpE fusion protein encoding amino acids 1-479 reduced the intensity of microfilaremia by 40 to 60% compared to control animals given buffer or bacterial trpE (p less than 0.01 to 0.001). Mice immunized with the 92-kDa fusion protein developed delayed-type hypersensitivity reactivity to B. malayi as assessed by enhanced footpad swelling 24 and 48 h after intradermal injection of adult worm extract and in vitro lymph node mononuclear cell proliferation (3H-thymidine uptake) in response to the fusion protein (mean +/- SD stimulation index 4.7 +/- 0.8 vs 2.0 +/- 1.4 for trpE, p less than 0.05). Proliferative responses of lymph node cells coincubated with three other fusion proteins corresponding to the filarial protein truncated from its carboxyl-terminus suggest that dominant T cell epitopes of the 62-kDa Ag are encompassed by amino acids 437-479. Rabbit antibody to the 92-kDa trpE fusion protein immunoprecipitated a 62-kDa polypeptide from [35S] methionine biosynthetically labeled B. malayi microfilariae, adult female, and adult male worms. These data indicate that a recombinant Ag expressed in several developmental stages of B. malayi is capable of inducing partial resistance against microfilariae and Ag-specific T cell responses in mice.

2/7/3
07440213 90347213
The identification of an Onchocerca-specific recombinant antigen containing a T cell epitope.
Colina KF; Perler FB; Matsumura I; Meda M; Nutman TB
Laboratory of Parasitic Diseases, National Institutes of Health, Bethesda, MD 20892.
J Immunol Sep 1 1990, 145 (5) p1551-6, ISSN 0022-1767
Journal Code: IFB
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Recombinant Onchocerca volvulus Ag have been derived from expression libraries and examined for their ability to stimulate PBMC from patients infected with O. volvulus. Ten clones producing recombinant Ag were selected and plaque purified; lysogens were produced and found to express beta-galactosidase fusion proteins ranging in molecular mass from 115 to 138 kDa. When ammonium sulfate-precipitated lysates of these recombinant phage clones were examined for their ability to stimulate PBMC from a patient with onchocerciasis, all 10 recombinants produced stimulation above that to nonrecombinant phage. When individual fusion proteins, affinity purified on anti-beta-galactosidase linked to agarose, were used to stimulate PBMC from patients with onchocerciasis, only one of the recombinant Ag induced PBMC proliferation (stimulation index greater than 4) above that to Ag from nonrecombinant phage. Characterization of the DNA coding for this Ag showed it to be 1.2 kb in length with a small (90 bp) open reading frame; furthermore, it appears to be Onchocerca specific (on genomic dot blots) and single copy. Using overlapping peptides encompassing the entire open reading frame, one T cell epitope has been localized.
?pause

>>> PAUSE started.
?display sets

>>> PAUSE ended.

Set Items Description
S1 13 ALLERG? AND STIMULATION(W)INDEX?
S2 4 STIMULATION(W)INDEX? AND T(W)CELL?(W)EPITOPE?
?s allerg? and t(w)cell?(w)epitope?

Processing
Processing
45457 ALLERG?
1644283 T
1215070 CELL?
16135 EPITOPE?
611 T(W)CELL?(W)EPITOPE?
S3 44 ALLERG? AND T(W)CELL?(W)EPITOPE?
?t s3/6/1-44

3/6/1
08651496 93361496
Peripheral T-cell tolerance induced in naive and primed mice by subcutaneous injection of peptides from the major cat allergen Fel d I.

3/6/2
08647682 93357682
Sequence polymorphisms of cDNA clones encoding the mite allergen Der p I.

3/6/3
08642990 93352990
Epitope mapping with peptides of Chi t I component III and immunomodulation of the Chi t immune response.

3/6/4
08636779 93346779
T cell epitopes of house dust mite major allergen Der p II.

3/6/5
08618963 93328963
Analysis of human T cell responses to the group II allergen of Dermatophagoides species: localization of major antigenic sites.

3/6/6
08604693 93314693
Multiple T cell specificities for Bet v I, the major birch pollen allergen, within single individuals. Studies using specific T cell clones and overlapping peptides.

3/6/7
08562828 93272828
T cells specific for the myelin oligodendrocyte glycoprotein mediate an unusual autoimmune inflammatory response in the central nervous system.

3/6/8
08514765 93224765

T cell epitope specificity in human allergic and nonallergic subjects to bee venom phospholipase A2.

3/6/9
08460863 93170863
Comparison of antigen presentation by lymph node cells from protein and peptide-primed mice.

3/6/10
08429494 93139494
Identification of multiple T cell epitopes on Bet v I, the major birch pollen allergen, using specific T cell clones and overlapping peptides.

3/6/11
08315284 93025284
Molecular mimicry and the autoimmune response to the peripheral nerve myelin PO glycoprotein.

3/6/12
08307889 93017889
Spontaneous development of protective anti-T cell receptor autoimmunity targeted against a natural EAE-regulatory idiotope located within the 39-59 region of the TCR-V beta 8.2 chain.

3/6/13
08248776 92386776
Induction of a pharmacologically active clonotypic B cell response directed to an immunogenic region of the human beta 2-adrenergic receptor.

3/6/14
08230414 92368414
Towards peptide immunotherapy in rheumatoid arthritis: competitor-modulator concept.

3/6/15
08194913 92332913
Mapping human T cell epitopes on phospholipase A2: the major bee-venom allergen.

3/6/16
08186294 92324294
Cell adhesion molecules of the immunoglobulin supergene family as tissue-specific autoantigens: induction of experimental allergic neuritis (EAN) by PO protein-specific T cell lines.

3/6/17
08179350 92317350
Myelin proteolipid protein: minimum sequence requirements for active induction of autoimmune encephalomyelitis in SWR/J and SJL/J mice.

3/6/18
08159618 92297618
Determination of the three-dimensional solution structure of ragweed allergen Amb t V by nuclear magnetic resonance spectroscopy.

3/6/19
08080832 92218832
Human T cell responses to purified pollen allergens of the grass, Lolium perenne. Analysis of relationship between structural homology and T cell recognition.

3/6/20
07975253 92113253
T cell activation-inducing epitopes of the house dust mite allergen Der p I. Proliferation and lymphokine production patterns by Der p I-specific CD4+ T cell clones.

3/6/21
07902318 92040318
Stimulation of human peripheral blood lymphocytes with chironomid hemoglobin allergen (Chi t I).

3/6/22
07894815 92032815
The potential use of T cell epitopes to alter the immune response.

3/6/23
07875077 92013077
On the interaction of promiscuous antigenic peptides with different DR alleles. Identification of common structural motifs.

3/6/24
07875060 92013060
Complete sequence of the allergen Amb alpha II. Recombinant expression and reactivity with T cells from ragweed allergic patients.

3/6/25
07855174 91374174
Comparative histology of experimental allergic neuritis induced with minimum length neuritogenic peptides by adoptive transfer with sensitized cells or direct sensitization.

3/6/26
07829772 91348772
Human T-cell responses to ragweed allergens: Amb V homologues.

3/6/27
07696495 91215495
cDNA encoding the major mite allergen Der f II.

3/6/28
07586875 91105875
Peptide 53-78 of myelin P2 protein is a T cell epitope for the induction of experimental autoimmune neuritis.

3/6/29
07581760 91100760
T cell lines specific for an immunodominant epitope of human basic protein define an encephalitogenic determinant for experimental autoimmune

encephalomyelitis-resistant LOU/M rats.

3/6/30
07330184 90237184
New minimum length requirement for a T cell epitope for experimental allergic neuritis.

3/6/31
07156034 90063034
Determinants of human myelin basic protein that induce encephalitogenic T cells in Lewis rats.

3/6/32
06989864 89291864
Complete amino acid sequence of a Lolium perenne (perennial rye grass) pollen allergen, Lol p II.

3/6/33
06933587 89235587
Peptide-specific prevention of experimental allergic encephalomyelitis. Neonatal tolerance induced to the dominant T cell determinant of myelin basic protein.

3/6/34
06838339 89140339
Identification of an encephalitogenic determinant of myelin proteolipid protein for SJL mice.

3/6/35
06807533 89109533
A T cell epitope for experimental allergic neuritis is an amphipathic alpha-helical structure.

3/6/36
06733518 89035518
Encephalitogenic T cell clones with variant receptor specificity.

3/6/37
06708505 89010505
Multiple discrete encephalitogenic epitopes of the autoantigen myelin basic protein include a determinant for I-E class II-restricted T cells.

3/6/38
06641082 88286082
Two minor determinants of myelin basic protein induce experimental allergic encephalomyelitis in SJL/J mice.

3/6/39
06640420 88285420
Characterization of a major encephalitogenic T cell epitope in SJL/J mice with synthetic oligopeptides of myelin basic protein.

3/6/40
06640419 88285419

A T cell epitope for experimental allergic neuritis.

3/6/41
06360812 88005812
Demyelinating disease: an immunological model for studies of neural antigens.

3/6/42
06337787 87311787
Experimental allergic encephalomyelitis (EAE): role of B cell and T cell epitopes in the development of EAE in Lewis rats.

3/6/43
06307619 87281619
T cell specificity for class II (I-A) and the encephalitogenic N-terminal epitope of the autoantigen myelin basic protein.

3/6/44
06091066 87065066
T-cell epitope of the autoantigen myelin basic protein that induces encephalomyelitis.
?t s3/7/22,40

3/7/22
07894815 92032815
The potential use of T cell epitopes to alter the immune response.
Schad VC; Garman RD; Greenstein JL
ImmuLogic Pharmaceutical Corporation, Cambridge, MA 02139.
Semin Immunol Jul 1991, 3 (4) p217-24, ISSN 1044-5323
Journal Code: A61
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
Recent advances in the understanding of T cell specificity and activation have lead to the design of T cell specific immunomodulators. T cell epitope containing peptides have been proposed as agents which may either enhance or dampen the immune response. In this review, we examine two systems which can benefit from the application of this novel technology. Vaccine development is moving toward the use of defined cloned or synthetic molecules. T cell epitope identification and design can be used to augment the ability of a weak antigen to generate an immune response. In contrast, traditional allergy immunotherapy has been shown to alter the immune response to the allergenic antigen. T cell epitope approaches to allergy desensitization offer a new therapeutic modality. (50 Refs.)

3/7/40
06640419 88285419
A T cell epitope for experimental allergic neuritis.
Olee T; Powers JM; Brostoff SW
Department of Neurology, Medical University of South Carolina, Charleston 29425.
J Neuroimmunol Aug 1988, 19 (1-2) p167-73, ISSN 0165-5728
Journal Code: HSO
Contract/Grant No.: NS11867

Languages: ENGLISH
Document type: JOURNAL ARTICLE
A synthetic peptide representing residues 57-81 of the bovine P2 protein produced severe paralytic experimental allergic neuritis (EAN) in Lewis rats. Peptide 57-81 could also be used to stimulate a P2 protein-specific T cell line to transfer paralytic EAN to naive recipient rats. A smaller peptide representing residues 60-81 produced a milder form of clinical disease. Residues 60-81 are the shortest peptide sequence thus far described which can produce clinical EAN. The structural predictions for the sequence represented by these peptides support the contention that T cell antigenic sites tend to be amphipathic alpha-helical structures.
?t s3/7/4,5,6,15,20,9,10

3/7/4
08636779 93346779
T cell epitopes of house dust mite major allergen Der p II.
Joost van Neerven R; van t'Hof W; Ringrose JH; Jansen HM; Aalberse RC; Wierenga EA; Kapsenberg ML
Laboratory for Cell Biology and Histology, University of Amsterdam, Academisch Medisch Centrum, The Netherlands.
J Immunol (UNITED STATES) Aug 15 1993, 151 (4) p2326-35, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Recent work has indicated the significance of IL-4- and IL-5-secreting allergen-specific human Th2 lymphocytes in the control of immune responses to allergens in atopic individuals. The precise allergenic epitopes that activate these allergen-specific Th2 cells are, however, hardly known. We analyzed the epitope-specificity of T lymphocytes specific for Der p II, one of the major allergens of house dust mite Dermatophagoides pteronyssinus. Using a panel of overlapping synthetic peptides that span the entire Der p II molecule, we could demonstrate that polyclonal Der p II-specific T cell lines prepared from the peripheral blood of five atopic patients can react with at least 10 different epitopes of the molecule. Each donor showed a different pattern of reactivity with the synthetic peptides, suggesting that Der p II contains multiple T cell epitopes that may differ from individual to individual. We studied the specificity of the T cell response to Der p II in more detail in one atopic patient using a short term polyclonal T cell line that strongly reacted to one single peptide (116-129) of the allergen. From this patient we established a panel of 11 Der p II-specific TLC. Ten TLC were of the CD3+ CD4+ phenotype and showed a high IL-4/IFN-gamma production ratio, whereas another TLC expressed CD3 and CD8 and failed to secrete substantial IL-4 and IFN-gamma. The use of at least four different TCR V beta gene segments was shown within this panel TLC. All TLC tested recognized the allergen in an HLA-DR1-restricted manner. Although this patient reacted to only one peptide on the polyclonal level, two T cell epitopes were identified on the clonal level by using synthetic peptides and autologous APC to stimulate the TLC. Combining data of CD4/CD8 expression, TCR V beta usage, and epitope specificity, at least six different types of Der p II-specific TLC could be identified within this patient. Binding of IgE to all synthetic peptides of Der p II is low and of low affinity, which may be of particular importance with respect to possible desensitization protocols using such

peptides.

3/7/5
08618963 93328963
Analysis of human T cell responses to the group II allergen of Dermatophagoides species: localization of major antigenic sites.
O'Hehir RE; Verhoef A; Panagiotopoulou E; Keswani S; Hayball JD; Thomas WR; Lamb JR
Department of Immunology, St. Mary's Hospital Medical School, London, England.
J Allergy Clin Immunol (UNITED STATES) Jul 1993, 92 (1 Pt 1) p105-13, ISSN 0091-6749 Journal Code: H53
Languages: ENGLISH
Document type: JOURNAL ARTICLE
BACKGROUND: IgE antibodies reactive with the group II allergens of Dermatophagoides species (house dust mite [HDM]) are a major component of the allergic immune response in HDM-allergic atopic individuals. METHODS: Here we demonstrate, with the use of overlapping synthetic peptides of the group II allergen of Dermatophagoides pteronyssinus (Der p II), that polyclonal T cells isolated from the majority of atopic HDM-allergic individuals and healthy nonatopic control subjects respond to Der p II and that T-cell epitopes are present in all regions of the protein. RESULTS: From comparison of peptide-specific T-cell proliferation in both groups of individuals, it appears that together peptides 61-86 and 78-104 are the most frequently recognized (16 of 18 individuals). We also observed that nine of the 18 individuals responded to T-cell epitopes in the region 11-50, and with Der p II-reactive T-cell clones, three distinct T-cell epitopes were mapped within the sequence 11-35. Also, with the use of T-cell clones, two additional epitopes were identified at residues 81-96 and 91-101. CONCLUSIONS: These results suggest that T-cell epitopes located in these regions (11-50 and 61-104) are immunodominant. The value of this information in the potential application of Der p II peptides to desensitize HDM allergic responses is discussed.

3/7/6
08604693 93314693
Multiple T cell specificities for Bet v I, the major birch pollen allergen, within single individuals. Studies using specific T cell clones and overlapping peptides.
Ebner C; Schenk S; Szepfalusi Z; Hoffmann K; Ferreira F; Willheim M; Scheiner O; Kraft D
Institute of General and Experimental Pathology, University of Vienna, Austria.
Eur J Immunol (GERMANY) Jul 1993, 23 (7) p1523-7, ISSN 0014-2980 Journal Code: EN5
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Twenty-five T cell clones specific for Bet v I were established from the peripheral blood of two birch pollen-allergic patients. The T cell epitopes of these clones were mapped using dodecapeptides overlapping for 2 amino acids (neighbors share 10 residues) spanning the whole amino acid sequence of the protein (159 amino acids). In total, 7 epitopes could be detected. One donor displayed 6 distinct T cell specificities for the Bet v I molecule in 14 T cell clones; for the other donor, 4 stimulating peptides

for 11 clones could be identified. Two T cell epitopes were recognized by both subjects. One of these might represent an immunodominant epitope located at amino acid position 77-92 of the Bet v I molecule, as in 13/25 T cell clones activation could be induced by this amino acid sequence. One T cell clone reacted with purified pollen-derived Bet v I, but neither with any peptide synthesized according to a Bet v I-encoding cDNA nor with the respective recombinant protein. Upon stimulation with allergen, the majority of the clones (21/24) revealed the TH0 or TH2 type of cytokine production (interleukin-4 production), indicating their importance in the pathogenesis of the allergic disease.

3/7/15
08194913 92332913
Mapping human T cell epitopes on phospholipase A2: the major bee-venom allergen.
Dhillon M; Roberts C; Nunn T; Kuo M
Department of Medicine, Queen's University, Kingston, Ontario, Canada.
J Allergy Clin Immunol Jul 1992, 90 (1) p42-51, ISSN 0091-6749
Journal Code: H53
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Phospholipase A2 (PLA2), the major bee-venom allergen, was purified by gel filtration, inactivated by denaturing, and carboxymethylating its cysteine residues. Peripheral blood mononuclear cells from an individual (HLA-DR2 [15], Dw52, DQ1 and DQ3) allergic to bee stings were used to generate cell lines specific for PLA2 and a control antigen, tetanus toxoid. These lines were 90% CD3+, 64% CD4+ and 20% CD8+ by fluorocytometry analysis. T-lymphocyte epitope mapping done with 12 overlapping synthetic peptides of PLA2 revealed two immunodominant epitopes. These epitopes correspond to amino acid sequences 50 to 69 and 83 to 97 of PLA2. Cytokine interleukin-4 and Interferon-gamma secretion was studied from PLA2- and tetanus toxoid-specific cell lines. Interleukin-4 secretion was common to both cell lines but only tetanus-toxoid cell lines secreted interferon-gamma. No interferon-gamma was found to be secreted by PLA2-specific cell line in response to stimulation by PLA2 or the two immunodominant peptides.

3/7/20
07975253 92113253
T cell activation-inducing epitopes of the house dust mite allergen Der p I. Proliferation and lymphokine production patterns by Der p I-specific CD4+ T cell clones.
Yssel H; Johnson KE; Schneider PV; Wideman J; Terr A; Kastelein R; De Vries JE
DNAX Research Institute for Molecular and Cellular Biology, Palo Alto, CA 94304.
J Immunol Feb 1 1992, 148 (3) p738-45, ISSN 0022-1767
Journal Code: IFB
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Cloned human CD4+ T cell lines specific for the house dust mite Dermatophagoides pteronyssinus were used to map minimal T cell activation-inducing epitopes on the Group I allergen in D. pteronyssinus extracts (Der p I) molecule. Most of these Der p I-specific T cell clones

expressed different TCR V alpha and V beta gene products. Using recombinant deletion proteins, three T cell epitopes were identified on the Der p I molecule; p45-67 and p117-143 were recognized by HLA-DR7-restricted T cells, whereas p94-104 was recognized in the context of HLA-DR2, DRw11 (DR5), and -DR8 molecules. This degenerate class II MHC restriction appears to be due to shared Phe and Asp residues at positions 67 and 70, respectively, in the third variable domain of the HLA-DR beta chain. All three T cell epitopes induced Th2-like cytokine production profiles by the Der p I-specific T cell clones, which were characterized by the production of very high levels of IL-4 and IL-5, as compared with those secreted by tetanus toxin-specific T cell clones derived from the same patients, but no or low amounts of IL-2 and IFN-gamma. This Th2-like production profile was, however, not an intrinsic property of the Der p I-specific T cells, but was dependent upon their mode of activation. Stimulation with Con A also induced very low or no measurable levels of IL-2 and IFN-gamma, whereas activation with TPA and the calcium ionophore A23187 resulted in the production of high levels of IL-4, IL-5, IL-2, and IFN-gamma. These results indicate that Der p I-specific T cell clones are not defective in their capacity to produce high levels of Th1 cytokines.

3/7/9
08460863 93170863
Comparison of antigen presentation by lymph node cells from protein and peptide-primed mice.
Hoyne GF; Callow MG; Kuo MC; Thomas WR
Western Australia Research Institute for Child Health, Princess Margaret Hospital, Perth.
Immunology (ENGLAND) Jan 1993, 78 (1) p58-64, ISSN 0019-2805
Journal Code: GH7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Lymph node cells from mice primed with peptides from the allergens Der p I and Der p II (the group I and II allergens of Dermatophagoides pteronyssinus) were unable to recall responses to the protein antigen when cultured in vitro despite being able to mount large responses to the peptides. The T cells could however recall responses to the protein when spleen-adherent cells were added into culture. Treating the spleen accessory cells with the monoclonal antibody (mAb) 33D1 and complement largely abrogated the protein response of peptide-primed T cells which indicates that dendritic cells were mainly responsible for the antigen-presenting function. If mice were primed with two injections of peptide the lymph node cells obtained could respond to both protein and peptides in vitro without the need for exogenous accessory cells. Using either negative depletion with the J11D mAb or positive purification, it was found that the presentation of protein antigen to lymph node T cells primed with either protein or peptide was limited to antigen-specific B cells. Peptide antigens could however be presented by both B and non-B populations. In one case the peptide 105-129 from Der p II which contains a T-cell epitope could not be shown to induce T-cell responses in the lymph node unless presentation was mediated by spleen-adherent or B-specific cells. These results are important for peptide-based immunomodulation and in interpreting results obtained from lymph node cultures.

3/7/10

08429494 93139494

Identification of multiple T cell epitopes on Bet v I, the major birch pollen allergen, using specific T cell clones and overlapping peptides.

Ebner C; Szepfalusi Z; Ferreira F; Jilek A; Valenta R; Parronchi P; Maggi E; Romagnani S; Scheiner O; Kraft D

Institute of General and Experimental Pathology, University of Vienna, Austria.

J Immunol (UNITED STATES) Feb 1 1993, 150 (3) p1047-54, ISSN 0022-1767 Journal Code: IFB

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Eleven T cell clones (TCC) with specificity for Bet v I were established from the peripheral blood of six birch pollen allergic donors. Bet v I is the major allergen of birch (Betula verrucosa) pollen and shows high homology to the major allergens of pollens of other trees within the order fagales (hazel, alder, hornbeam, oak, etc.), which represent important inhalant allergens in the northern hemisphere. The TCC were shown to react with purified natural, as well as with purified recombinant Bet v I. All clones showed the helper cell phenotype (CD3+CD4+) and expressed the TCR-alpha/beta. The cytokine production pattern in response to stimulation with allergen resulted in enhanced production of IL-4 in 9 of 11 clones. The clones were used for T cell epitope mapping on the Bet v I molecule. For this purpose, peptides with a length of 12 amino acids each and overlapping for 10 residues were synthesized following the amino acid sequence of Bet v I. These 75 peptides were used to stimulate Bet v I-specific T cell clones. Our experiments revealed 7 distinct T cell epitopes on the Bet v I molecule. The epitopes were scattered over the whole molecule, 2 sequences were in agreement with an algorithm previously described for the prediction of T cell epitopes. In 3 cases, we could identify distinct TCC specificities within single individuals. Furthermore, for each donor, none of the peptides representing epitopes for TCC inhibited the binding of IgE antibodies to Bet v I. These results suggest that T cells and IgE antibodies from the same individual recognize different structures on the Bet v I allergen.

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